## **Technical Appendix**

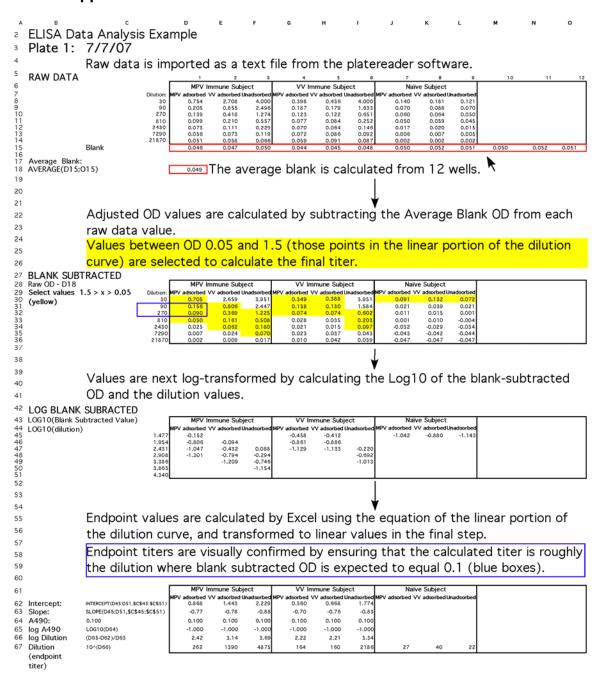


Figure 1. Illustration of ELISA data analysis. Optical density values at 490 nm ( $OD_{490}$ ) values were imported directly into Excel (Microsoft, Redmond, WA) from the ELISA microplate reader (VersaMax; Molecular Devices, Sunnyvale, CA, USA). The average  $OD_{490}$  of 12 blank wells (Line 18) was then subtracted from the raw  $OD_{490}$  obtained for each sample well. These values were transformed to logarithmic scale to create a log-log curve. We use linear  $OD_{490}$  values between 1.5 and 0.05 because these typically fall within the linear portion of the curve and are used to determine the endpoint titer. The slope and intercept of the linear portion of the curve were determined by a standard y = mx + b calculation, and the dilution at which  $OD_{490} = 0.1$  was transformed to a linear value to give a final endpoint titer.